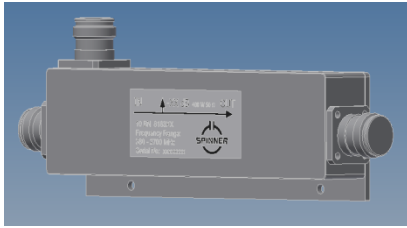
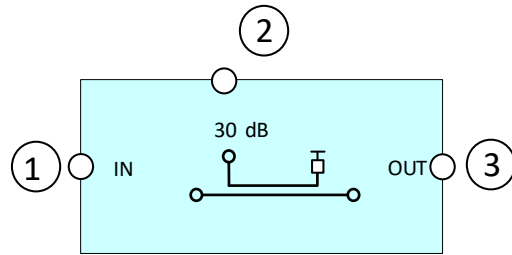


Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB



Picture not binding



Block diagram using 30 dB as example

Electrical characteristics

Part number (BN) 4.3-10 Female (50 Ohms)	818431	818432	818433	818434	818435	818436	818437	818438	818439
Part number (BN) 7-16 Female (50 Ohms)	818440	818441	818442	818443	818444	818445	818446	818447	818448
Splitting ratio	1 : 0.32 : 0.67	1 : 0.25 : 0.75	1 : 0.2 : 0.8	1 : 0.16 : 0.84	1 : 0.1 : 0.9	1 : 0.05 : 0.95	1 : 0.03 : 0.97	1 : 0.01 : 0.99	1 : 0.001 : 0.999
Frequency range	350 – 3800 MHz								
Insertion loss	< 2.5 dB typ 2.0dB	< 1.8 dB typ 1.4dB	< 1.5 dB typ 1.2dB	< 1.2 dB typ 0.8dB	< 1.1 dB typ 0.7dB	< 0.8 dB typ 0.4dB	< 0.7 dB typ 0.3dB	< 0.5 dB typ 0.1dB	< 0.3 dB typ 0.1dB
Coupling	4.8 dB ± 1.2 dB	6 dB ± 1.2 dB	7 dB ± 1.2 dB	8 dB ± 1.5 dB	10 dB ± 1.5 dB	13 dB ± 1.5 dB	15 dB ± 1.5 dB	20 dB ± 2 dB	30 dB ± 2 dB
VSWR	Port 1	≤ 1.3							
Return Loss / VSWR	Port 3 *	≤ -15dB / 1.43							
Directivity	≥ 18 dB	≥ 18 dB	≥ 18 dB	≥ 18 dB	≥ 18 dB	≥ 17 dB	≥ 17 dB	≥ 15 dB	≥ 15 dB
DC-by-pass	Port 1 to Port 3 (max. 1A per input max. 60V DC (AISG Standard, 2.0, § 6.4))								
Passive intermodulation (IM3), 3rd order @ 2 x 20W	-155 dBc max. / -160 dBc typ.								
Power Rating Average power (CW)	4.3 -10 female ≤ 400 W (Port 1) / ≤ 10 W (Port 3) 7-16 female ≤ 500 W (Port 1) / ≤ 10 W (Port 3)								

\* According to DIN 14024-1

Mechanical characteristics

Connectors	4.3-10 female 7-16 female
Dimensions, approx.	82 x 105 x 24 mm (Width x Height x Depth)
Weight, approx.	4.3-10 female 0.68kg 7-16 female 0.88kg
Color	Grey
Wall / Mast mounting	to be ordered separately BN 30139A (optional)

Environmental conditions

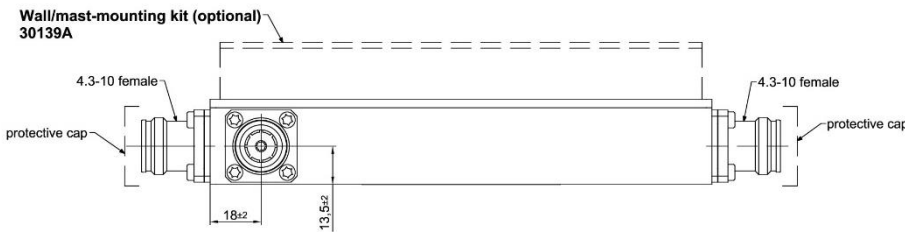
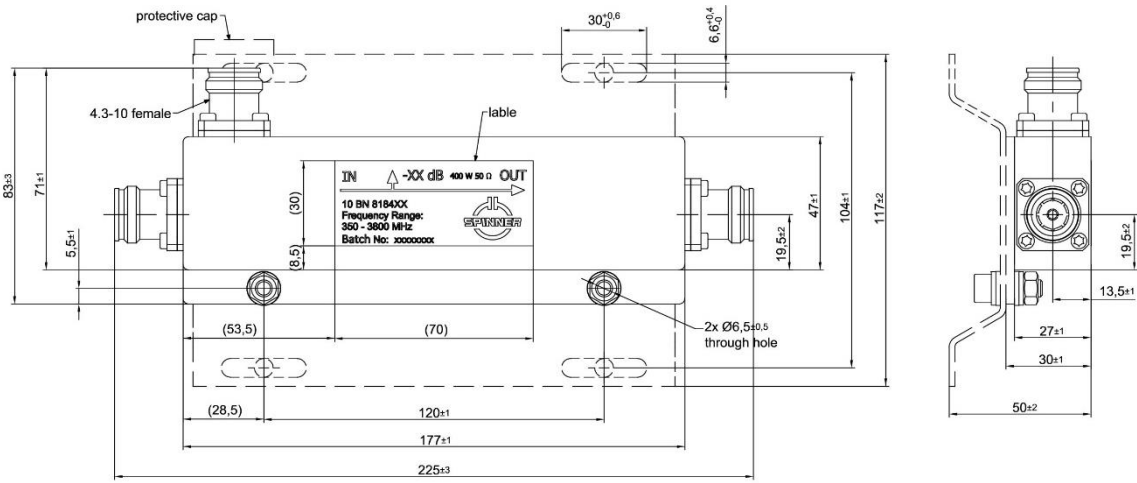
Class. of environmental conditions	ETSI EN 300019-1-1 Class 1.2 ETSI EN 300019-1-2 Class 2.3 ETSI EN 300019-1-4 Class 4.1E
Degree of protection	IP 65 (Outdoor)
Operation Ambient temperature range	-40 °C to +55 °C
Storage Ambient temperature range	-40 °C to +85 °C
Relative humidity, max.	95% (non-condensing)

SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

Template TD-00002Y

Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

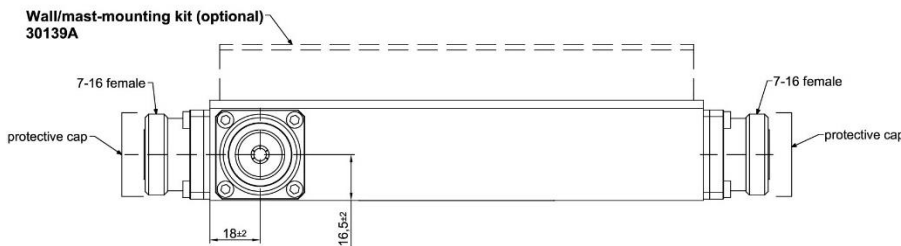
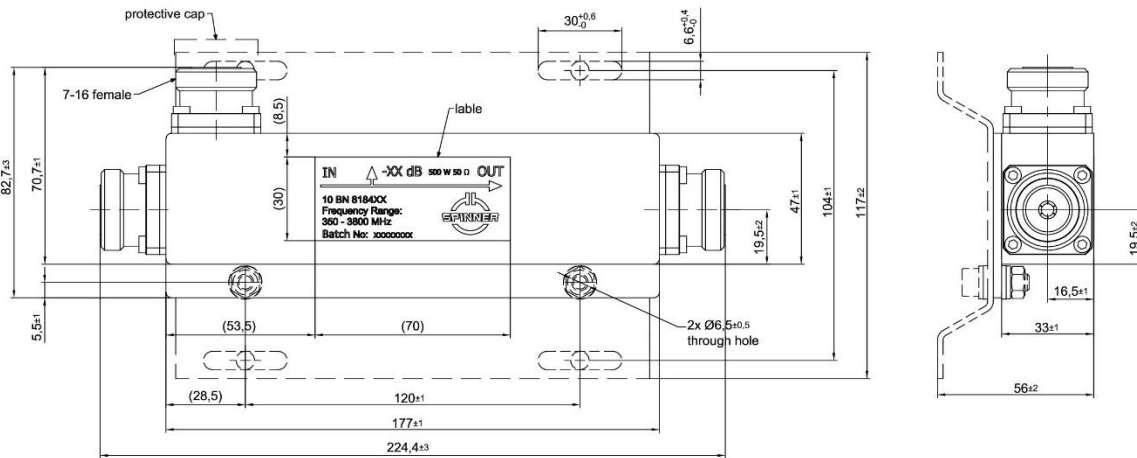
Outline (all dimensions in millimeter)



Standard:

4.3-10 female (50 ohms): IEC 61169-54

modifications reserved!



Standard:

7-16 female (50 ohms): EN 122190, IEC 61169-4

modifications reserved!

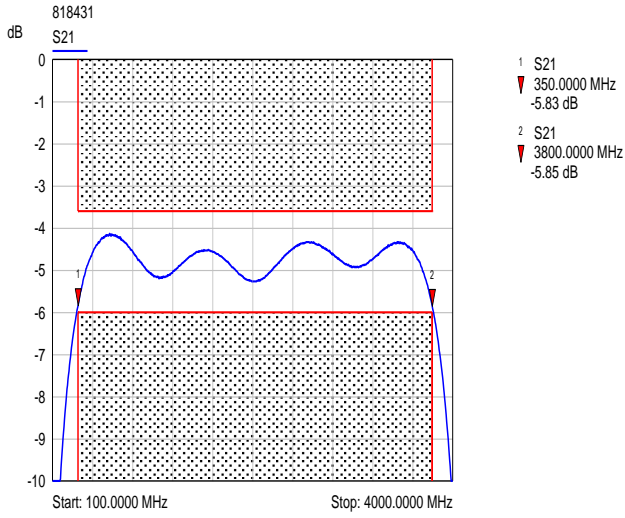
SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

Template TD-00002Y

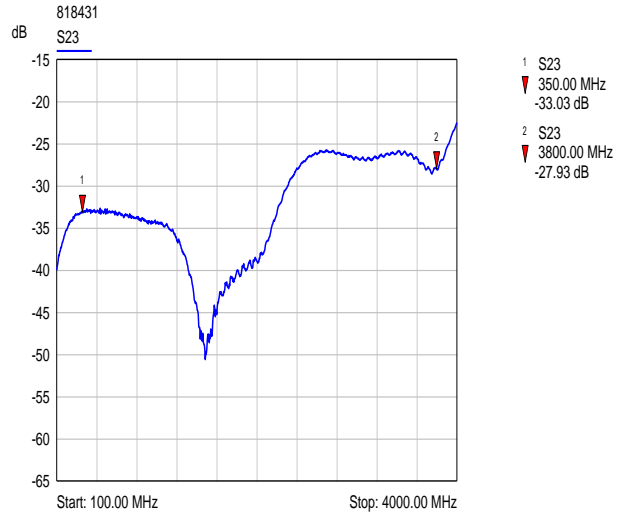
Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

Measurement:

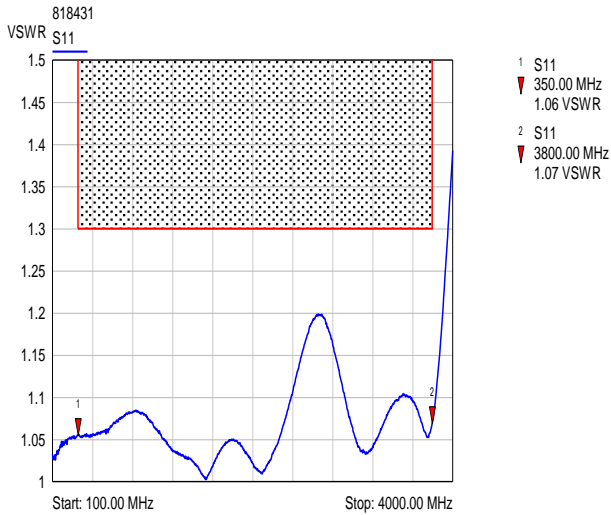
Coupling 4.8 dB (BN818431): S21



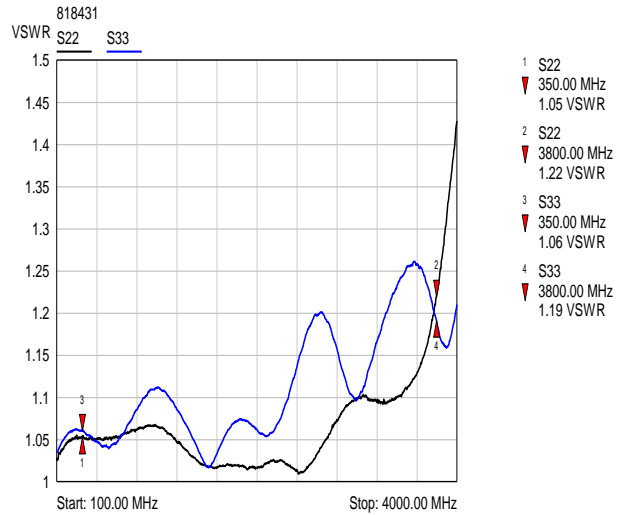
Directivity + Coupling (BN818431): S23



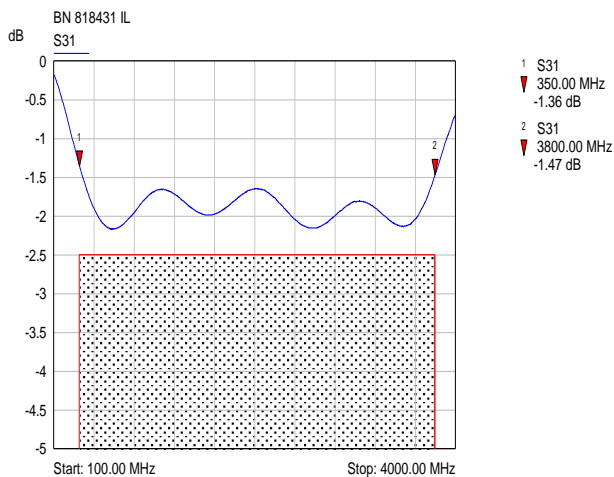
VSWR (BN 818431): S11



VSWR (BN 818431): S22 S33



Insertion Loss (BN818431):

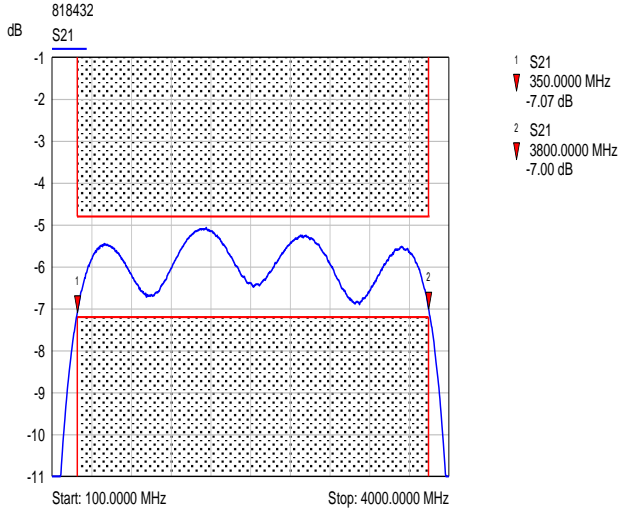


SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

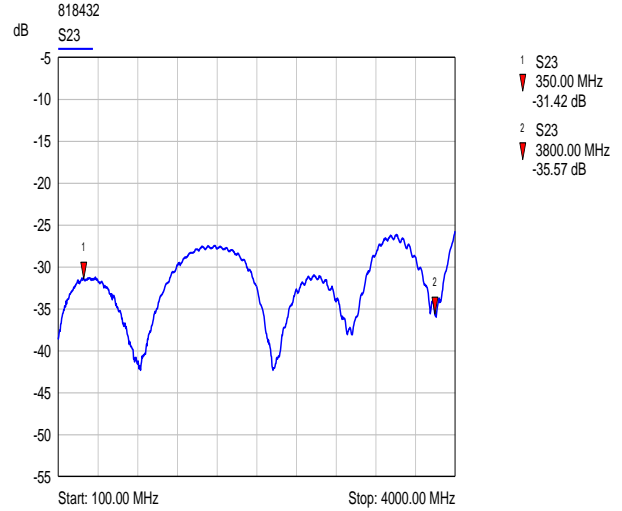
Template TD-00002Y

Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

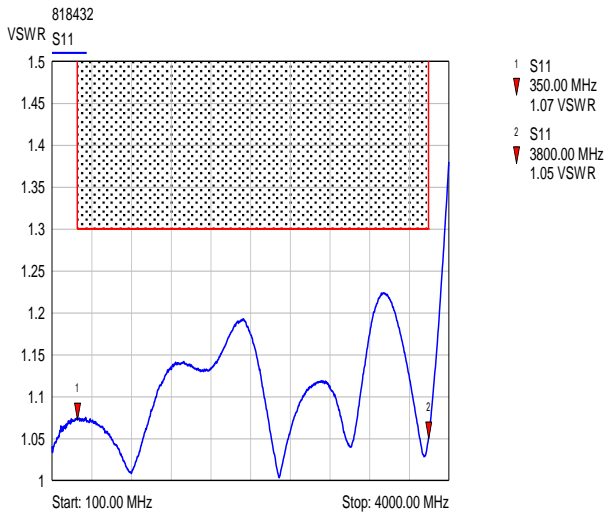
Coupling 6 dB (BN818432): S21



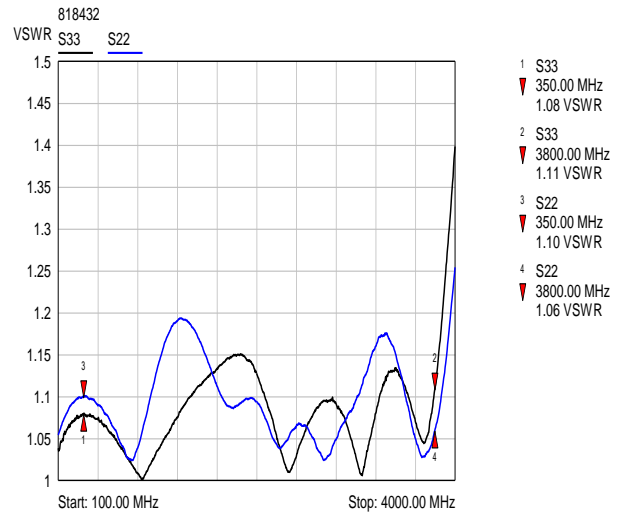
Directivity + Coupling (BN818432): S23



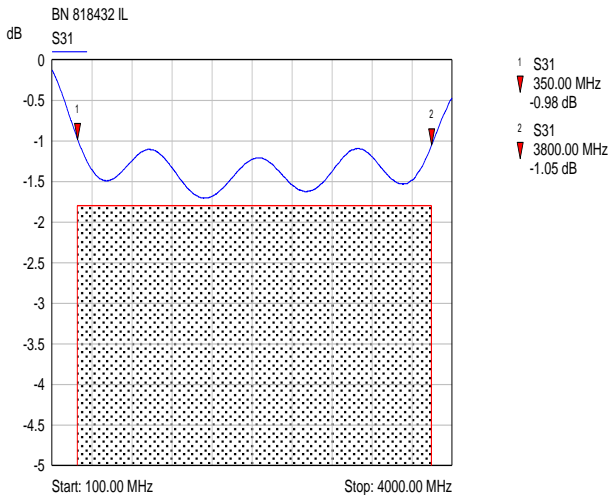
VSWR (BN 818432): S11



VSWR (BN 818432): S22 S33



Insertion Loss (BN818432):

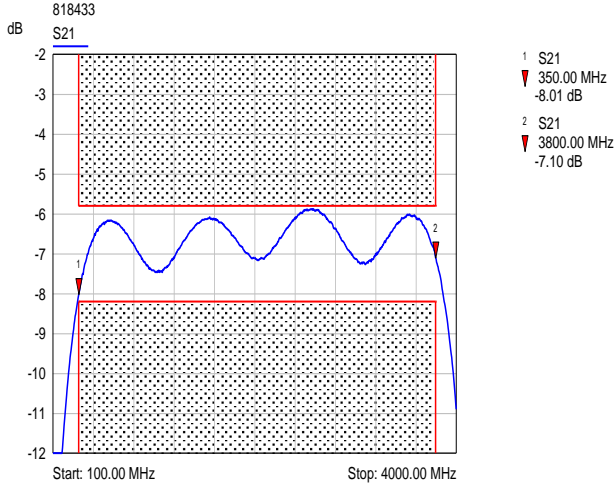


SPINNER GmbH  
This document is proprietary to us.  
All rights reserved. Any use, transfer, or reproduction of this document  
or the know-how contained therein requires our express consent.

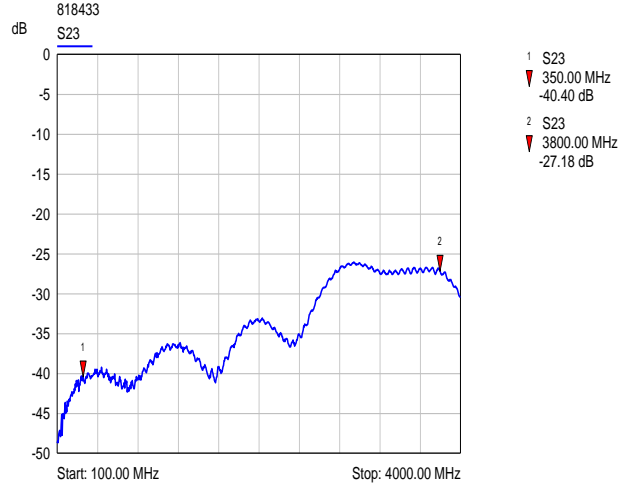
Template TD-00002Y

Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

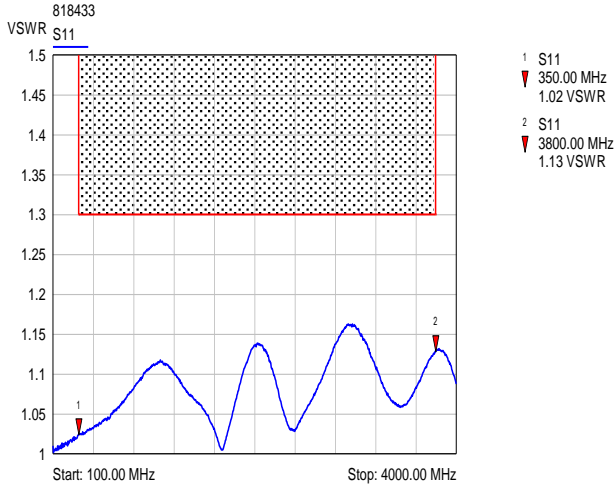
Coupling 7 dB (BN818433): S21



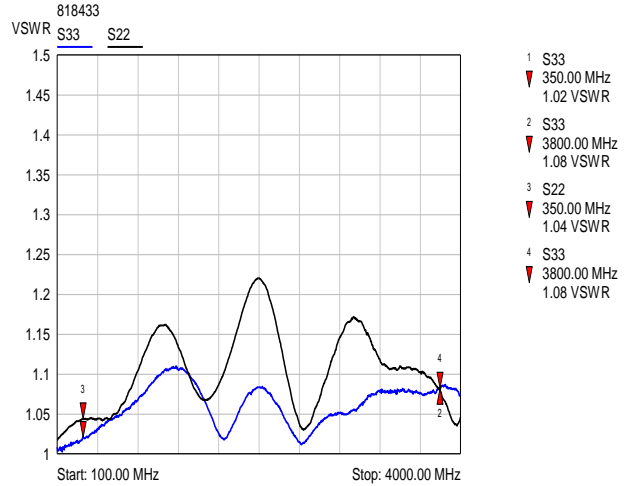
Directivity + Coupling (BN818433): S23



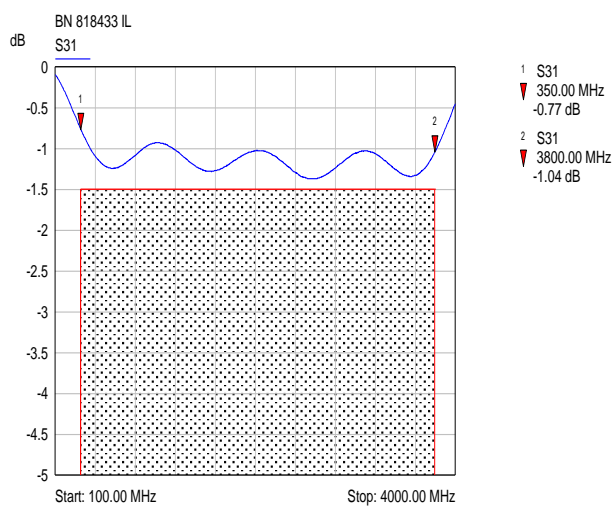
VSWR (BN 818433): S11



VSWR (BN 818433): S22 S33



Insertion Loss (BN818433):

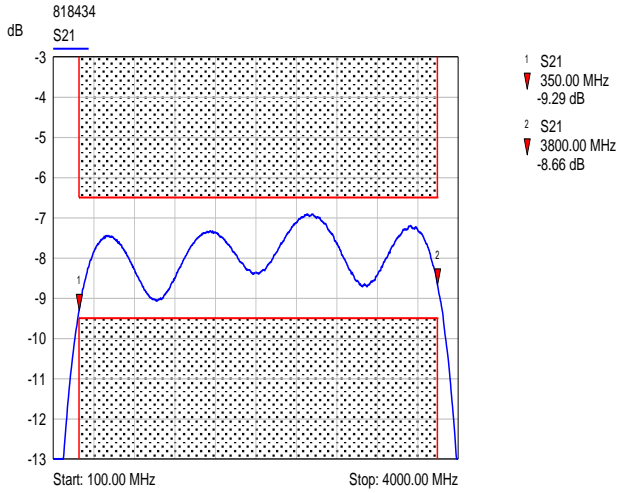


SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

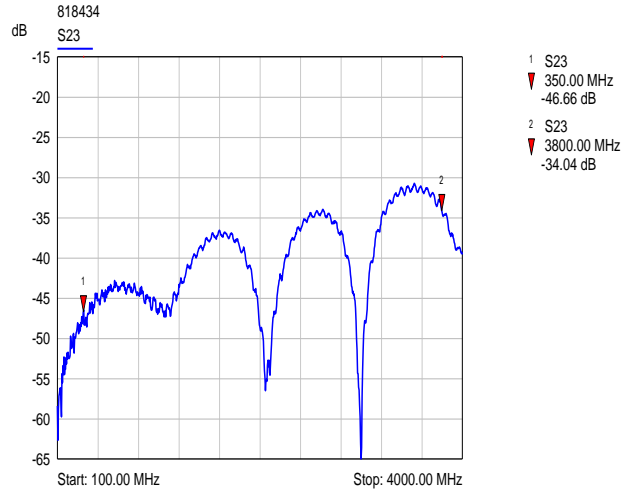
Template TD-00002Y

Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

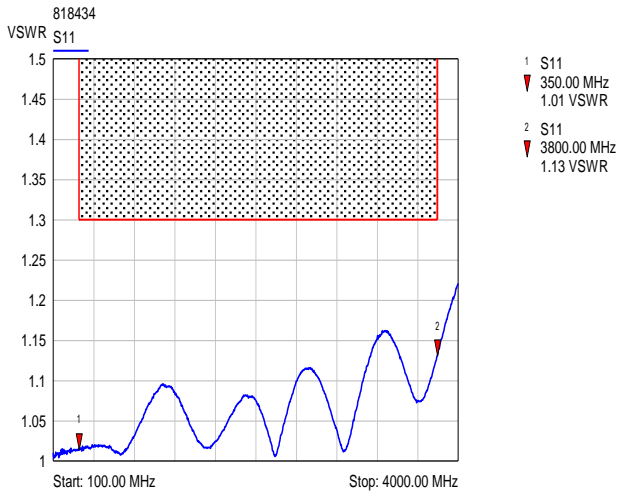
Coupling 8 dB (BN818434): S21



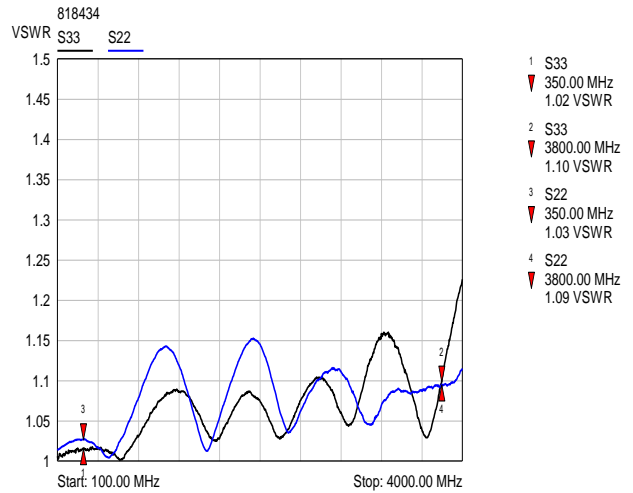
Directivity + Coupling (BN818434): S23



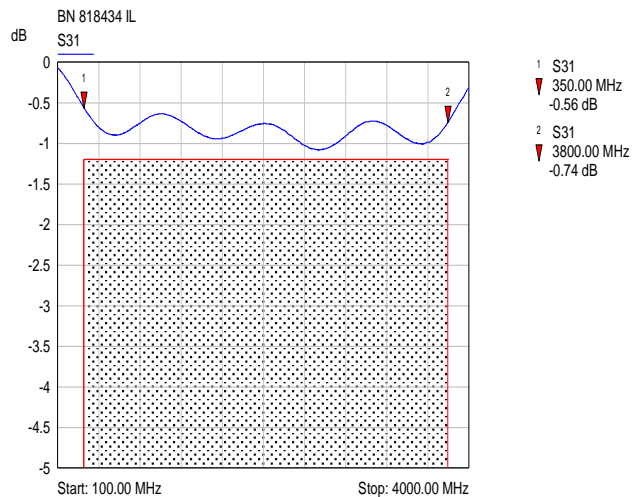
VSWR (BN 818434): S11



VSWR (BN 818434): S22 S33



Insertion Loss (BN818434):

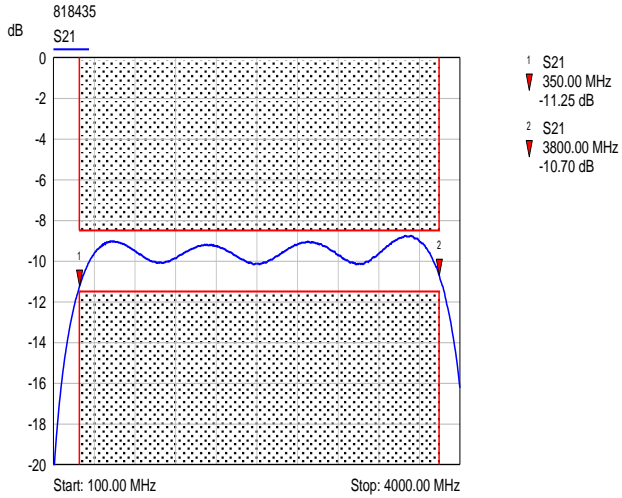


SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

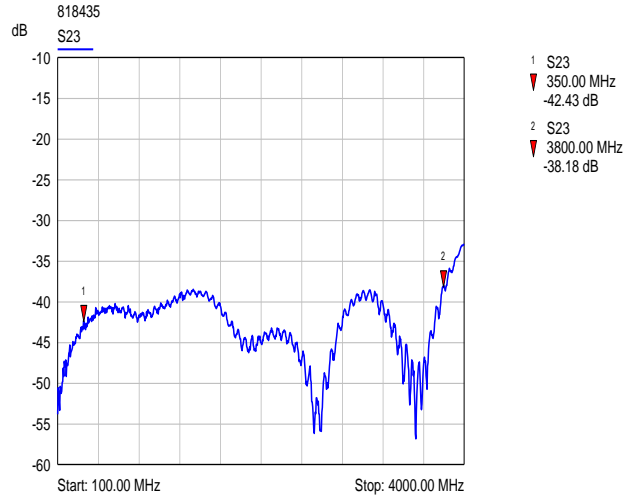
Template TD-00002Y

Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

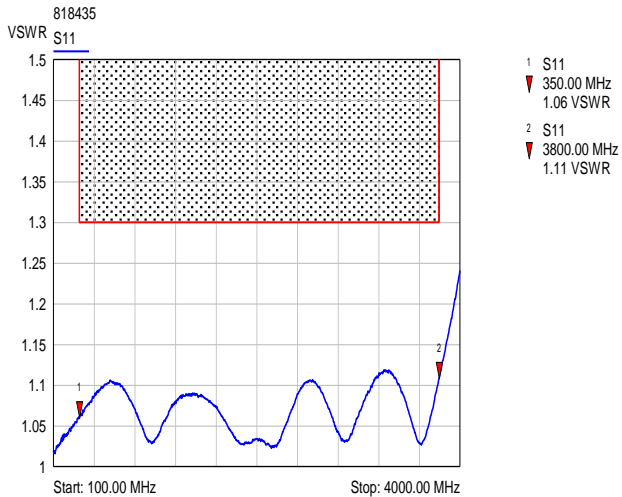
Coupling 10 dB (BN818435): S21



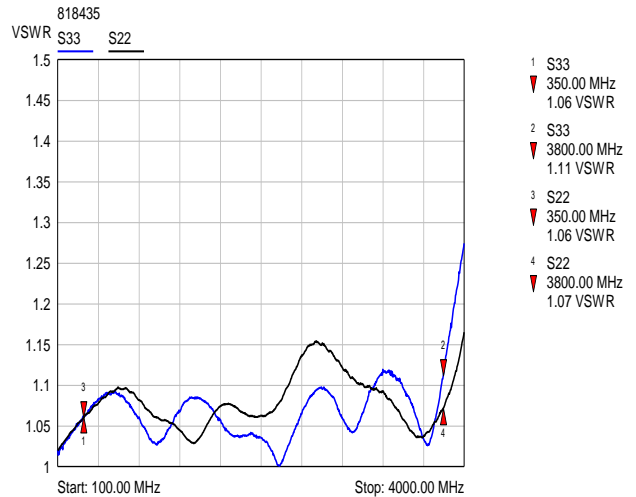
Directivity + Coupling (BN818435): S23



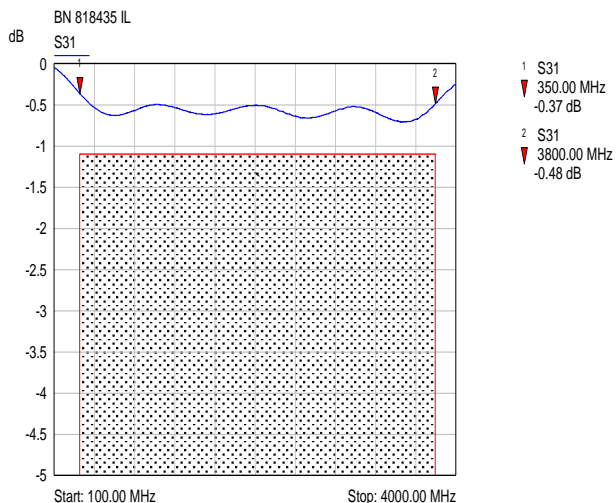
VSWR (BN 818435): S11



VSWR (BN 818435): S22 S33



Insertion Loss (BN818435):

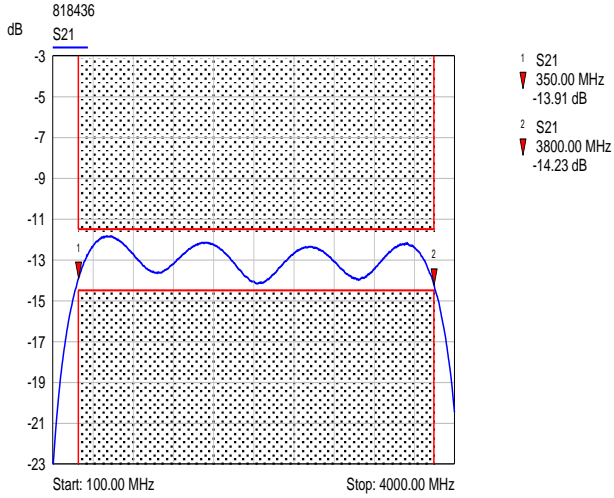


SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

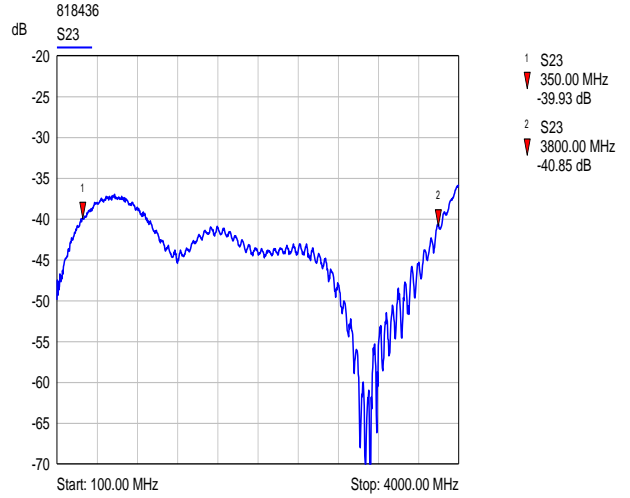
Template TD-00002Y

Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

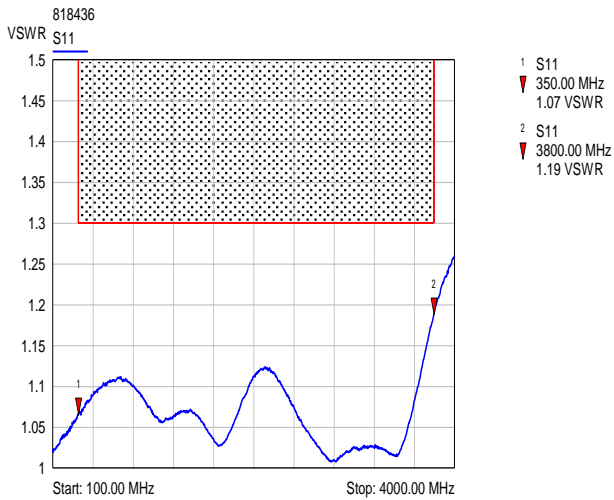
Coupling 13 dB (BN818436): S21



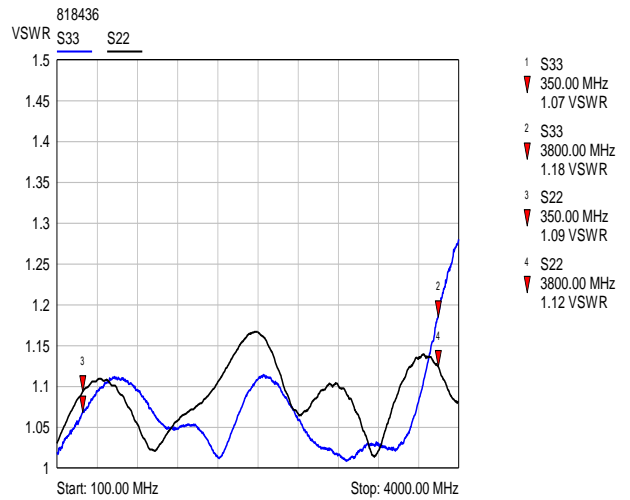
Directivity + Coupling (BN818436): S23



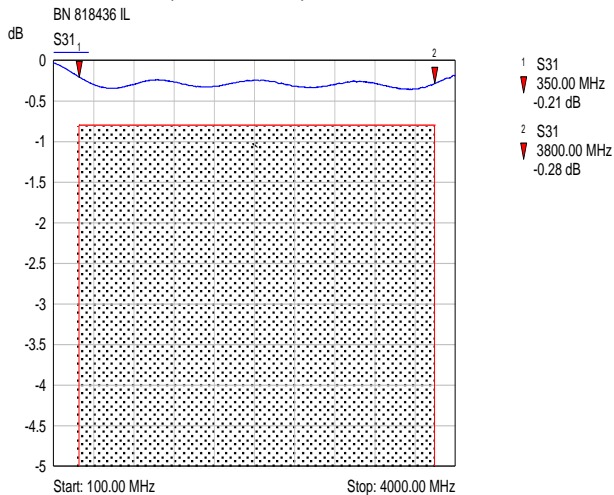
VSWR (BN 818436): S11



VSWR (BN 818436): S22 S33



Insertion Loss (BN818436):



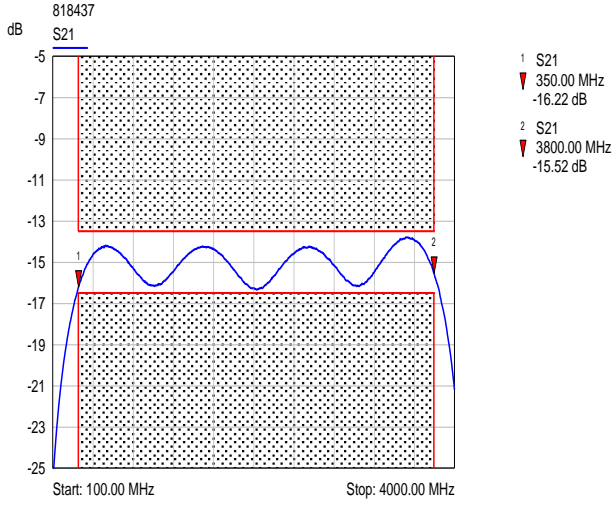
SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

Template TD-00002Y

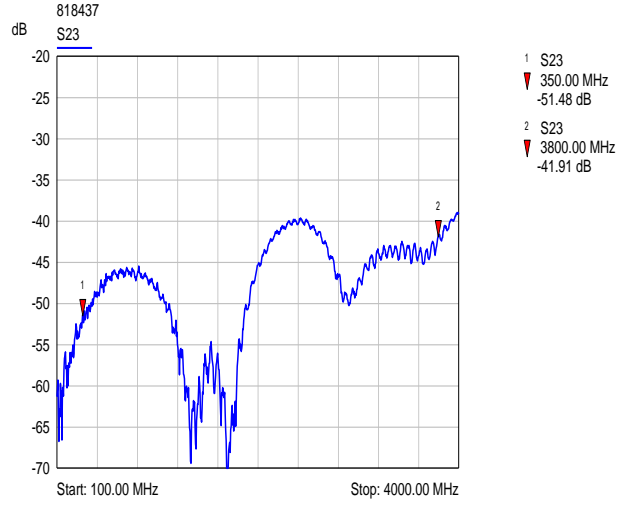


Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

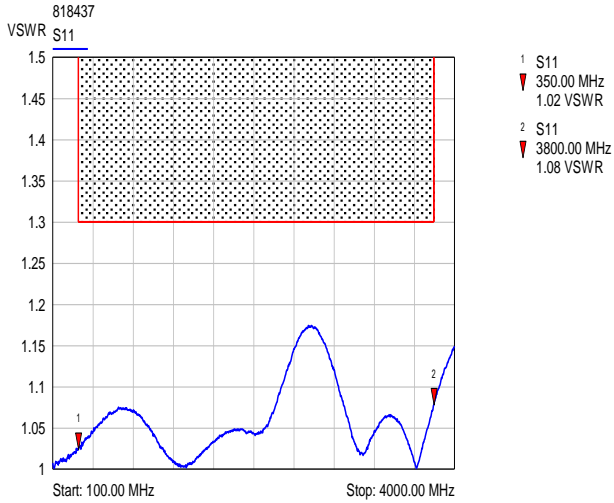
Coupling 15 dB (BN818437): S21



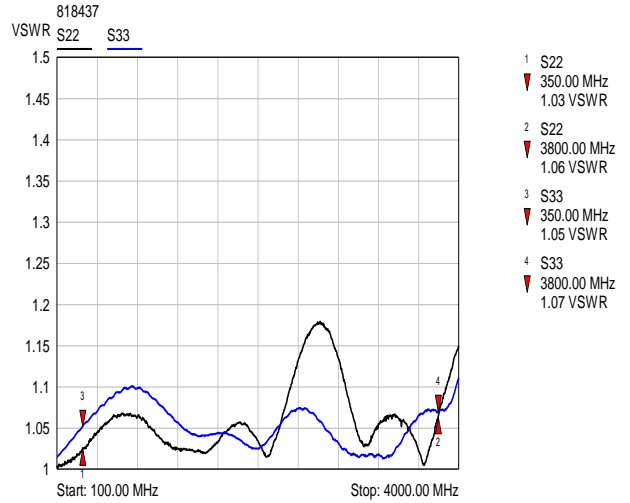
Directivity + Coupling (BN818437): S23



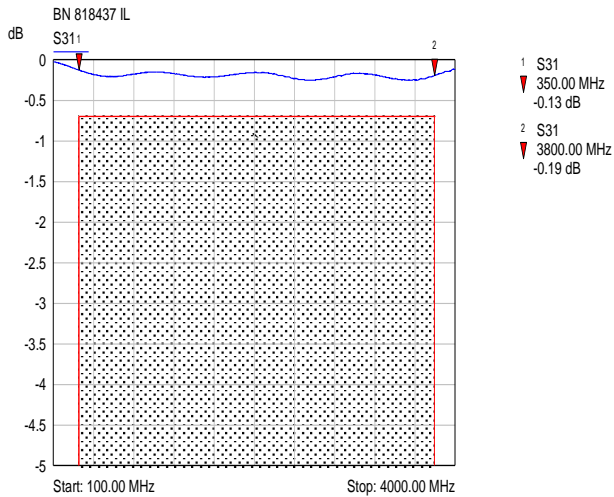
VSWR (BN 818437): S11



VSWR (BN 818437): S22 S33



Insertion Loss (BN818437):

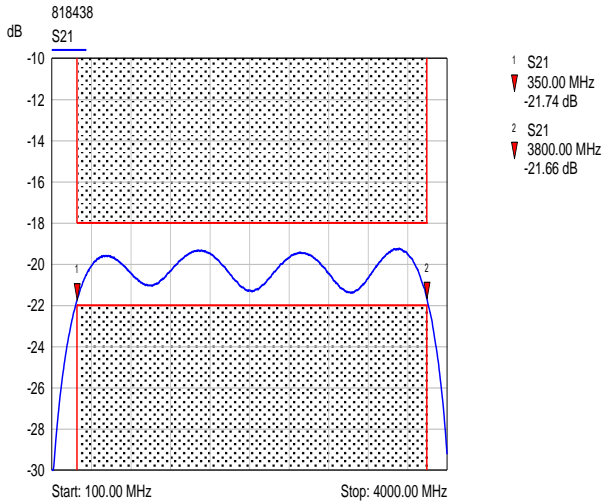


SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

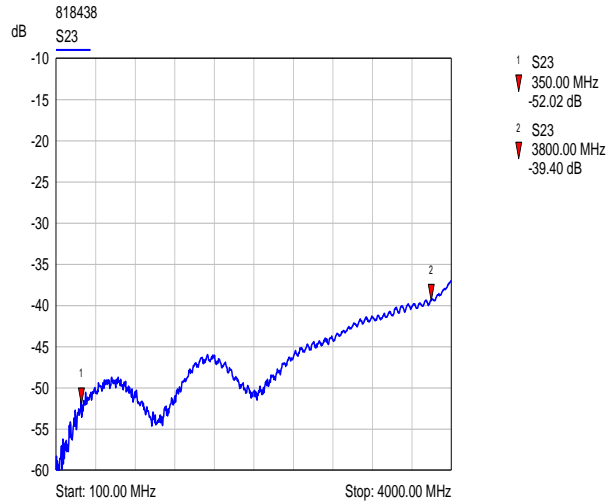
Template TD-00002Y

Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

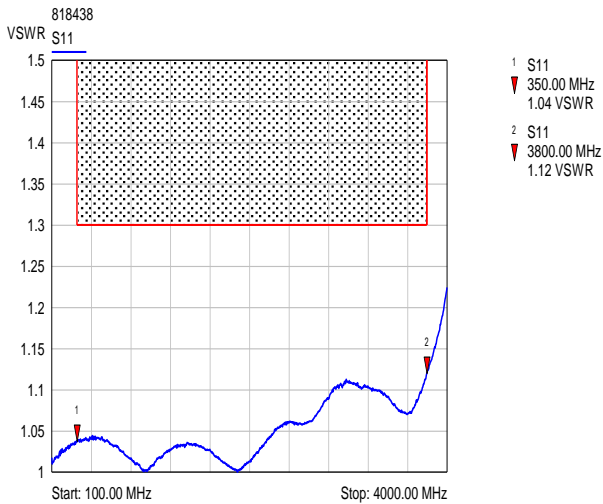
Coupling 20 dB (BN818438): S21



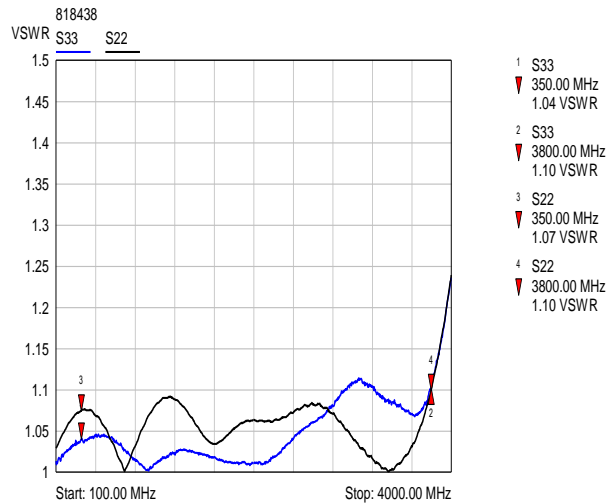
Directivity + Coupling (BN818438): S23



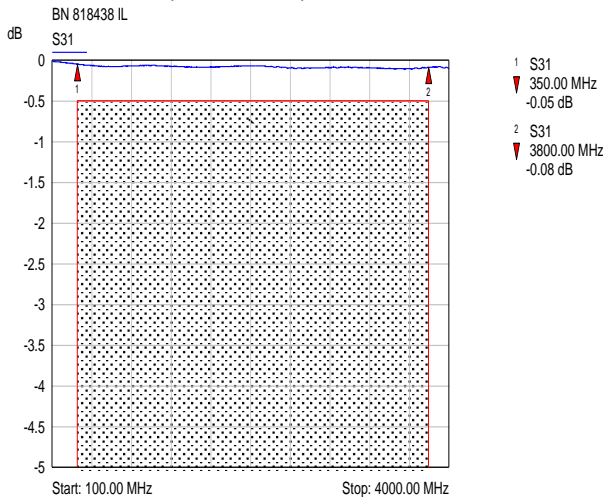
VSWR (BN 818438): S11



VSWR (BN 818438): S22 S33



Insertion Loss (BN818438):

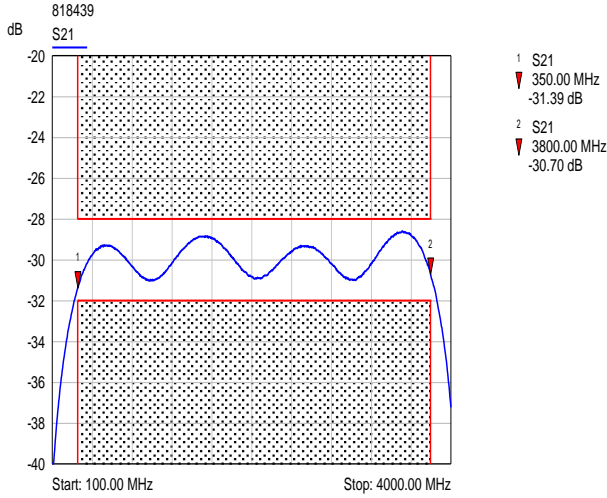


SPINNER GmbH. This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

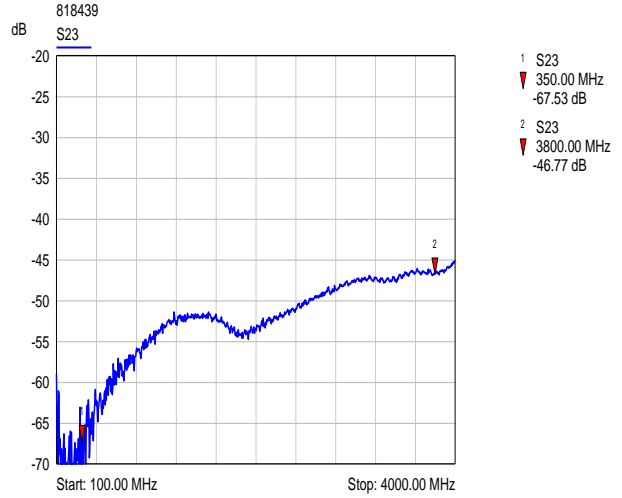
Template TD-00002Y

Directional Coupler 4.8dB /6dB /7dB /8dB /10dB /13dB /15dB /20dB /30dB

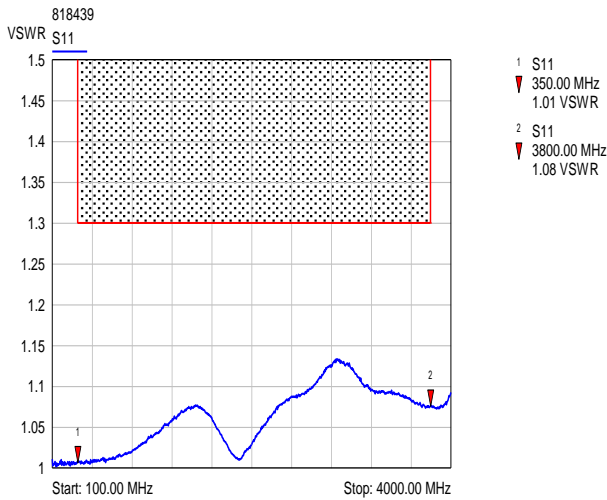
Coupling 30 dB (BN818439): S21



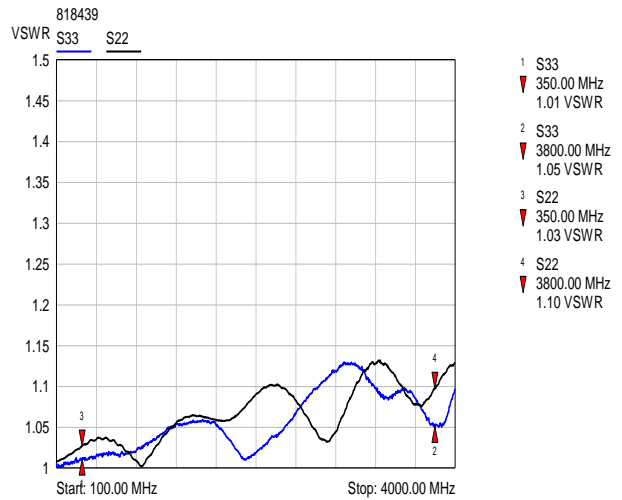
Directivity + Coupling (BN818439): S23



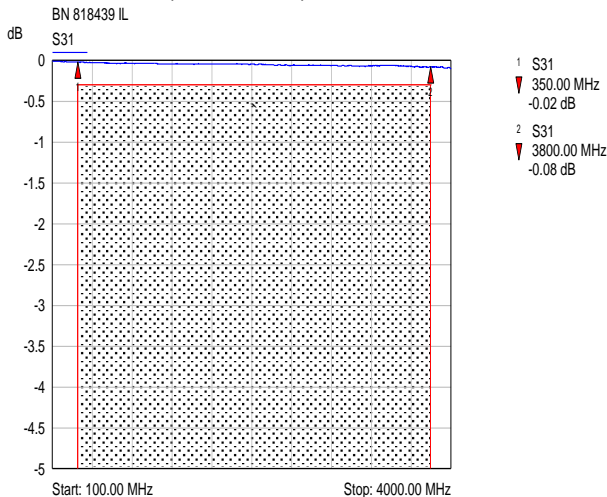
VSWR (BN 818439): S11



VSWR (BN 818439): S22 S33



Insertion Loss (BN818439):



SPINNER GmbH  
This document is proprietary to us.  
All rights reserved. Any use, transfer, or reproduction of this document  
or the know-how contained therein requires our express consent.

Template TD-00002Y